

SUMMARY OF COMPUTER RESOURCE USAGE  
INDIVIDUAL USER PROJECTS  
Period Covered 4/21/69 - 4/16/70

INVESTIGATOR	DEPARTMENT INSTITUTION	PROJECT TITLE	DIRECT GRANT OR CONTRACT SUPPORT		User Category	COMPUTER EQUIPMENT	
			Identification Number	Agency		General Description	Block Storage(k)
Alway, R.	Pediatrics	Compare information on family structure, attitudes, etc. in order to predict general illness symptomatology.	*RRO0311	NH	11	Non-funded user; pilot project; routine terminals	at .10 cents per block (full credit) 14
Butler, E.	Urology	Create uniform method of information retrieval and computer based data processing for operative statistics and other patient care information.	*RRO0311	NH	11		at .1 cent per page-minute (full credit) 0
Doering, C.	Psychiatry	Storing and searching an author and subject index.	*RRO0311	NH	11		0 631
Enlander, D.	Pathology	Filing and retrieving coded medical diagnoses	*RRO0311	NH	11		241 1,896
Enlander, D.	Pathology	Filing and retrieving coded medical diagnoses	*RRO0311	NH	11		2,159 1,369
Enlander, D.	Pathology	Filing and retrieving coded medical diagnoses	*RRO0311	NH	11		22,534 13,084
Friedland, G.	Radiology	Filing and retrieving coded medical diagnoses	*RRO0311	NH	11		240,115 40,101
Henry, P.	Psychiatry	Determination of the function of gastric sling fibers.	*RRO0311	NH	11		53,365 1,242
Hillman, R.	Psychiatry	Automatic staging of sleep EEG data and develop pattern recognition subroutines to identify and count monophasic sharp waves recorded from the lateral geniculate during sleep.	*RRO0311	NH	11		31,128 803
Korn, D.	Pathology	Construct computerized psychiatric "patient."	*RRO0311	NH	11		24,561 291
Lamb, E.	Gynecology - Obstetrics	Data retrieval of autopsy records.	*RRO0311	NH	11		26,195 506
Lederberg, J.	Genetics	Relative potency and confidence limits for total gonadotropic bioassay.	*RRO0311	NH	11		24,624 1,365
McCann, L.	Community & Preventive Medicine	Study of characteristics of unusually high birthweight relative to IQ, diseases, parent income, educational background, parity, and sex of child.	*RRO0311	NH	11		2,475 4,003
Mesel, E.	Pediatrics	Survey of Stanford Medical Center hospital charges for the aged.	*RRO0311	NH	11		19,266 274
Mesel, E.	Pediatrics	Interaction between physician and computer model.	*RRO0311	NH	11		344 795
Morrell, L.	Neurology	Store patient identification and diagnosis obtained during the course of illness.	*RRO0311	NH	11		5,452 5,470
Noble, E.	Psychiatry	Multivariate statistical evaluation of data relating electroencephalographic measures to motor behavior.	*RRO0311	NH	11		10,239 1,330
Whitcher, C.	Anesthesia	Effects of alcohol on CNS of rodents.	*RRO0311	NH	11		8,808 1,349
		Spectral analysis of blood pressure sounds.	*RRO0311	NH	11		0 12
						SUB-TOTAL	471,466 74,535

Grant No. FRO0311-04  
Section II B

\* Grant supporting more than one individual user.

SUMMARY OF COMPUTER RESOURCE USAGE  
INDIVIDUAL USER PROJECTS  
Period Covered 4/1/69 - 4/16/70

INVESTIGATOR	DEPARTMENT INSTITUTION	PROJECT TITLE	DIRECT GRANT OR CONTRACT SUPPORT		User Category	COMPUTER EQUIPMENT		
			Identification Number	Agency		General Description	Page-minutes(K)	Block Storage(K)
Angel, R.	Neurology	Movement patterns, limb displacement and velocity, and electromyography.	*RRO0311	NIH	12	Non-funded user; funding anticipated real time	at .01/2 cent per page-minute (full credit) 54,566	at .10 cents per block (full credit) 23,255
Constantinou, C.	Urology	Study of the electrophysiology of the ureter.	*RRO0311	NIH	12		121,869	3,651
Duffield, A.	Chemistry	Analysis of mass spectra and spectropolarimeter spectra; routine chemical analyses.	*RRO0311	NIH	12		4,088	122
Gersch, W.	Neurology	Research in application of time series methods to problems in neurophysiology and medicine.	*RRO0311	NIH	12		342,121	49,491
Reynolds, W.	Genetics	Analysis of mass spectra and spectropolarimeter spectra; routine chemical analyses.	*RRO0311	NIH	12		522,499	7,737
Ross, R.	Chemistry	Analysis of mass spectra and spectropolarimeter spectra; routine chemical analyses.	*RRO0311	NIH	12		157,929	3,538
Stillman, R.	Chemistry	Analysis of mass spectra and spectropolarimeter spectra; routine chemical analyses.	*RRO0311	NIH	12		331,568	7,824
						SUB-TOTAL	1,534,640	95,618
Assaykeen, T.	Urology	Control of renin secretion.	*RRO0311	NIH	13	Non-funded user; funding anticipated routine terminals	at .1 cent per page-minute (full credit) 12,682	at .10 cents per block (full credit) 160
Cohen, S.	Pharmacology	Establishment of computer-based program aimed at preventing undesirable drug interactions.	*RRO0311	NIH	13		0	12
DeLardo, G.	Nuclear Medicine	Using radioactive methods to assess regional distribution of ventilation and pulmonary blood flow.	*RRO0311	NIH	13		9,968	891
Fries, J.	Medicine - Immunology	Establishing clinical, pathologic, and laboratory correlations in the immunologic diseases and assessing these correlations in regard to classification, pathogenesis, prognosis, and response to therapy.	*RRO0311	NIH	13		45,705	840
Govan, D.	Urology	Clinical management and follow-up of patients with neurologic dysfunction of the bladder.	*RRO0311	NIH	13		88,190	1,462
Kakihana, R.	Psychiatry	Effects of alcohol on the CNS of rodents.	*RRO0311	NIH	13		8,099	516
Kriss, J.	Nuclear Medicine	Calculate results of bioassay for long-acting thyroid stimulator and of radioactive iodine assay for TSH.	*RRO0311	NIH	13		59,343	1,478
						SUB-TOTAL	223,987	5,359
* Grant supporting more than one individual user.								

Grant No. RRO0311-04  
Section II B

SUMMARY OF COMPUTER RESOURCE USAGE  
INDIVIDUAL USER PROJECTS  
Period Covered 4/21/69 - 4/16/70

Grant No. RFO0311-04  
Section II B

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SUMMARY OF COMPUTER RESOURCE USAGE  
INDIVIDUAL USER PROJECTS  
Period Covered 4/21/69 - 4/16/70

INVESTIGATOR	DEPARTMENT INSTITUTION	PROJECT TITLE	DIRECT GRANT OR CONTRACT SUPPORT		User Cate- gory	COMPUTER EQUIPMENT		
			Identification Number	Agency		General Description	Pageminutes (K)	Block Storage (K)
					15	Suspended pending in- dividual Institute approval - routine terminals	at .1 cent per pageminute	at .10 cents per block
Cornier, R.	Psychiatry	Relating neuroendocrine function to behavior.	HD02881	NIH	15		60,735	2,896
Fung, D.	Anesthesia	Research of acute ventillary insufficiency.	*GM00862	NIH	15		6,418	297
Fung, D.	Anesthesia	Determine response of pulmonary circulation to changes in inspired gas composition and intra-treacheal pressure.	*GM00862	NIH	15		25,951	322
Glatfke, T.	Otolaryngology	Collecting and processing ANS data; patient categorization.	NR05582	NIH	15		0	55
Goldstein, A.	Pharmacology	Drug-induced mouse activity.	*MH13963	NIH	15		17,459	1,319
Goldstein, D.	Pharmacology	Biochemical action of barbital.	*MH13963	NIH	15		1,349	97
Hackney, J.	Pharmacology	Drug-induced mouse activity.	GM00382	NIH	15		0	13
Hill, F.	Psychiatry	Interactive on-line psychological testing.	*MH11028	NIH	15		0	3,852
Hwang, J.	Genetics	Birthweight and IQ in relation to sex, parents, education, race, and income.	*GM00295	NIH	15		12,751	7,396
Kaplan, B.	Psychiatry	Relation to ANS responses to attentional sets (thinking and environmental observation).	MH08304	NIH	15		4,057	515
Kapp, D.	Radiology	Data analysis of sedimentation patterns of DNA following X-irradiation.	CA10372	NIH	15		13,217	146
Kessler, S.	Psychiatry	Mating speed analysis in drosophila pseudoscorpia.	MH14364	NIH	15		3,645	2,582
Kriss, J.	Nuclear Medicine	Calculate plasma and blood volumes and red cell mass in patients receiving radiation.	AM07642	NIH	15		0	12
Lederberg, J.	Genetics	Statistical and miscellaneous programs used by the Genetics Department.	*GM00295	NIH	15		10,395	4,975
Leiderman, P.	Psychiatry	Effects of early separation of mother and infant on maternal behavior and on infant growth and development.	HD02636	NIH	15		21,099	3,073
Luetscher, J.	Medicine - Metabolic Research	Secretion and metabolism of adrenal hormones.	AM03062	NIH	15		78,860	10,436
Melges, F.	Psychiatry	Understanding psychotic processes.	MH29163	NIH	15		13,863	800
Miller, R.	Community & Preventive Medicine	Biostatistical consulting to Stanford Medical Center.	GM02511	NIH	15		44,237	786
Miller, R.	Community & Preventive Medicine	Biostatistics research and/or education.	*GM00025	NIH	15		0	10
Miller, R.	Community & Preventive Medicine	Teaching of courses in biostatistics.	*GM00025	NIH	15		0	16
Nelsen, T.	Surgery	Clinical cancer research record protocols and storage and analysis.	*CA05838	NIH	15		13,580	2,170

Grant No. RR00311-14  
Section II B

\* Grant supporting more than one individual user.

SUMMARY OF COMPUTER RESOURCE USAGE  
INDIVIDUAL USER PROJECTS  
Period Covered 4/1/69 - 4/16/70

INVESTIGATOR	DEPARTMENT INSTITUTION	PROJECT TITLE	DIRECT GRANT OR CONTRACT SUPPORT		User Cate- gory	COMPUTER EQUIPMENT		
			Identification Number	Agency		General Description	Pagerminutes(K)	Block Storage(K)
Payne, R.	Medicine - Hematol- ogy	Extending leukocyte and/or tissue antigen classification by serologic and genetic analysis.	HE03365	NIH	15	Suspended pending in- dividual Institute approval - routine terminals	213,302	25,678
Porter, R.	Biochemistry	Steady-state kinetics of aspartate transcar- bamylase.	*M011788	NIH	15		21,057	1,470
Reaven, G.	Medicine - Lipid Research	Relationship between glucose, insulin, and triglyceride kinetics and diabetes mellitus and arteriosclerosis.	AM05372	NIH	15		87,343	947
Reaven, G.	Medicine - Lipid Research	On-line display procedure to determine physi- ological models of metabolic processes.	*HE08506	NIH	15		38,885	791
Reaven, G.	Medicine - Lipid Research	Calculating theoretical curve displayed on a CRT and comparing data on CRT.	*HE08506	NIH	15		15,399	340
Reitan, J.	Anesthesia	Processing cardiac interval timing to monitor contractile state under varying loads and drugs.	*GM00862	NIH	15		36,557	8,189
Rosenberg, S.	Oncology	Correlating drug responsiveness in cancer patients.	CA08122	NIH	15		191,346	4,153
Smith, P.	Anesthesia	Premature or sick newborn infant research.	HR00081	NIH	15		1,957	1,137
Spevack, A.	Psychiatry	Classical conditioning experiments of amygdal- ectomized and intact monkeys.	*MH08304	NIH	15		39,141	3,159
Stark, G.	Biochemistry	Analyze data on enzyme experiments and to pro- cess chromatograms generated by an amino acid analyzer.	*M011788	NIH	15		55	39
Stillman, R.	Psychiatry	Interviewing and testing psychiatric patients.	M011028	NIMH	15		14,072	4,252
Stocker, B.	Medicine - Micro- biology	Genetics and physiology of salmonella typhi- murium.	*AI08942	NIH	15		36,232	8,159
Strickland, R.	Medicine - G. I. Division	Analyzing gastric secretory function tests.	AM05418	NIH	15		0	431
Summerlin, W.	Dermatology	Biochemical control of collagen formation.	AM05318	NIH	15		0	49
Vosti, K.	Medicine - Infec- tious Diseases	Cross-tabulating variables associated with bacterial infections.	AI03638	NIH	15		15,448	1,183
SUB-TOTAL							3,597,514	341,850
TOTAL							19,657,693	1,237,426

\* Grant supporting more than one individual user.

Grant No. FRC0311-04  
Section II B

SUMMARY OF COMPUTER RESOURCE USAGE  
OTHER USE (Non-health related use)  
Period Covered 4/21/69 - 4/16/70

INVESTIGATOR	DEPARTMENT INSTITUTION	PROJECT TITLE	DIRECT GRANT OF CONTRACT SUPPORT		User Cate- gory	General Description	COMPUTER EQUIPMENT	
			Identification Number	Agency			Pagaminutes(K)	Block Storage(K)
					2	Stanford Non-Medical School and Non-Bio- medical Research	at .2-1/2 cents per pagaminate block	
Ashley, H.	Aero & Astro				9		99,947	5,702
Barrish, B.	School of Education				9		4,172	190
Buchanan, B.	Computer Science				9		44,907	1,457
Deinhardt, C.	Anthropology				9		0	4
Enlander, D.	INDEX				9		40,844	532
Fork, D.	Carnegie Institution				9		28,779	459
Garwin, E.	Stanford Linear Accelerator Center				9		2	10
Gittelman, B.	Stanford Linear Accelerator Center				9		14,377	75
Gray, C.	INDEX				9		6,297	73
Gustavsen, D.	Stanford Linear Accelerator Center				9		157,017	6,357
Hall, R.	University of California, Berkeley - Econom- ics				9		7,404	4,609
Halpern, M.	INDEX				9		30,496	731
Hanko, H.	Stanford Research Institute				9		0	8
Hardwick, J.	School of Business				9		0	6
Headrick, T.	School of Law				9		180,681	854
Headrick, T.	School of Law				9		1,234	36
Johansen, D.	Aero & Astro				9		209,316	1,621
Jurrow, J.	Stanford Linear Accelerator Center				9		15,992	3,533
Linn, M.	INDEX				9		15,914	355
Miller, S.	INDEX				9		18,394	218
Naumes, W.	School of Business				9		69,512	2,546
Niebuhr, W.	School of Business				9		95	20
Olson, G.	Chemistry				9		1,482	101
Pavline, N.	Controller's Office - Systems				9		0	144
Rabinowitz, M.	Stanford Linear Accelerator Center				9		30	95
Richter, B.	Stanford Linear Accelerator Center				9		66,259	2,126

Grant No. PR00211-04  
Section II B

SUMMARY OF COMPUTER RESOURCE USAGE  
OTHER USE (Non-health related use)  
Period Covered 4/1/69 - 4/30/70

INVESTIGATOR	DEPARTMENT INSTITUTION	PROJECT TITLE	DIRECT GRANT OR CONTRACT SUPPORT			COMPUTER EQUIPMENT		
			Identification Number	Agency	Current Annual Amt.	User Cate- gory	General Description	Block Storage(K)
Ritson, D.	Physics					9	Stanford Non-Medical School and Non-Bio- medical Research	at .2-1/2 cents per pageminute block
Saal, H.	Stanford Linear Accelerator Center					9		53,644 41,436
Schawlow, A.	Physics					9		3,696
Schrader, G.	INDEX					9		6,135
Wiederhold, G.	INDEX					9		48,225
Wiederhold, G.	MASCOR					9		21,571
Winfield, E.	Center for Materials Research					9		81,562
							TOTAL	1,269,420 48,149
TOTALS:								
			CORE RESEARCH PROJECTS				Number of Projects	56
			INDIVIDUAL USER PROJECTS					138
			OTHER USE (Non-health related use)					33
			GRAND TOTAL - RESOURCE USAGE					227
								5,100,935
								19,697,693
								1,269,420
								26,068,048
								1,415,234
								129,659
								1,237,426
								48,149
								1,415,234

Grant No. RR00311-04  
Section II B

GRANT NO. PR00311-04  
Section IIC

ACME

RENTAL EQUIPMENT

LIST OF COMPONENTS ON ORDER OR ON HAND

04/30/70

360/50 CONFIGURATION

QTY.	TYPE-SERIAL	DESCRIPTION	MODEL NO.	LOCATION	RENTAL START DATE	MONTHLY RATE	E/A%	EDUCATIONAL ALLOWANCE	TAX	NET RENTAL	UNIV. ACCT. CODE
01	1052-50618	Console Typewr	07	S101-MED. CTR.	12-13-66	63.00	20	12.60	2.52	52.92	10
01	1403-14708	Printer 600 LPM	02	"	"	833.00	20	166.60	33.32	699.72	10
01	2050-11047	Additional CPU	F	"	"	1,600.00	25	400.00	60.00	1,260.00	10
01	2050-11047	CPU		"	"	10,040.00	35	3,514.00	326.30	6,852.30	10
01	2314-11149	DIR ACCESS STGE		"	4-12-68	5,250.00	20	1,050.00	210.00	4,410.00	10
01	2314-12326	DIR ACCESS STGE		"	1-6-69	5,250.00	20	1,050.00	210.00	4,410.00	10
01	2361-10102	Core Storage		"	7-1-68	10,990.00	45	4,945.50	302.23	6,346.73	10
01	2401-10877	MAG TAPE UNIT		"	12-13-66	335.00	20	67.00	13.40	281.40	10
01	2403-70738	MAG TAPE UNIT CONTROL		"	"	890.00	20	178.00	35.60	747.60	10
01	2540-12531	CARD READER PUNCH		"	"	660.00	20	132.00	26.40	554.40	10
01	2701-11144	DATA ADAPTER UNIT		"	12-13-66	1,025.00	20	205.00	41.00	861.00	10
01	2702-20185	TRANSMISSION CONTROL		"	12-13-66	1,670.00	20	334.00	66.80	1,402.80	10
01	2821-12464	CONTROL UNIT		"	12-13-66	1,085.00	20	217.00	43.40	911.40	10
	360/50 CONFIGURATION TOTAL					39,691.00		12,271.70	1,370.97	28,790.27	

ACCOUNT CODE	DISTRIBUTION ACCOUNT NO.	AMOUNT
10	0-KKG-041-92635	28,790.27



GRANT NO. FRO0311-04  
Section IIC

ACME

RENTAL EQUIPMENT

CONTRACT PRO 250				LIST OF COMPONENTS ON ORDER OR ON HAND				04/30/70			
QTY.	TYPE-SERIAL	DESCRIPTION	MODEL NO.	LOCATION	RENTAL START DATE	MONTHLY RATE	E/A%	EDUCATIONAL ALLOWANCE	TAX	NET RENTAL	UNIV. ACCT. CODE
01	2316-24122	DISK PACK		SI01-MED. CTR.	5-8-68	20.00	20	4.00	.80	16.80	15
01	2316-24124	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-24125	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30092	"		"	4-12-68	20.00	20	4.00	.80	16.80	15
01	2316-30093	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30094	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30095	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30096	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30097	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30098	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30099	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30100	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30101	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30102	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-30103	"		"	"	20.00	20	4.00	.80	16.80	15
01	2316-57822	"		"	10-13-68	20.00	20	4.00	.80	16.80	15
						320.00		60.00	12.00	272.00	

LIST OF ACME TERMINALS ON HAND

04/30/70

QTY.	TYPE-SERIAL	DESCRIPTION	LOCATION	RENTAL START DATE	MONTHLY RATE	E/A%	EDUCATIONAL ALLOWANCE	TAX	NET RENTAL
01	2741-10472	COMM. TERMINAL	ACME-STAT.	12-13-66	100.50	20	20.10	4.02	84.42
01	2741-10473	"	FLEISCHMAN	12-13-66	100.50	20	20.10	4.02	84.42
01	2741-10477	"	GENETICS	12-13-66	100.50	20	20.10	4.02	84.42
01	2741-10490	"	ACME-OPRTR.	12-13-66	100.50	20	20.10	4.02	84.42
01	2741-10508	"	ACME-TEACH	12-13-66	100.50	20	20.10	4.02	84.42
01	2741-10509	"	GENETICS	12-13-66	100.50	20	20.10	4.02	84.42
01	2741-12847	"	ACME-SYST.	5-1-68	105.50	20	21.10	4.22	88.62
01	2741-12856	"	ACME-DEMO.	5-1-68	100.50	20	20.10	4.02	84.42
01	2741-12883	"	ACME-SEC'Y	10-6-67	100.50	20	20.10	4.02	84.42
01	2741-14382	"	ACME-S'tware	5-10-68	100.50	20	21.10	4.22	88.62

1800 RENTAL EQUIPMENT

QTY.	TYPE	DESCRIPTION	RENTAL START DATE	ANNUAL RENT
01	1826	DATA ADAPTER UNIT	9-22-66	\$ 7,691.00
01	1442	CARD READ PUNCH	9-22-66	2,591.00

OTHER RENTED EQUIPMENT

<u>Description</u>	<u>Manufacturer</u>	<u>Model No.</u>	<u>Rental Start Date</u>	<u>Annual Rent</u>
Card Punch	IBM	029	9-22-66	\$675.00
5 Data Sets	Westinghouse Electric	103A2		2,322.00

RESOURCE EQUIPMENT LIST--PURCHASED

Period Covered 18/1/67 - 4/30/70

EQUIPMENT LOCATED IN MAIN RESOURCE AREA

Equipment						
Description / Identification	Manufac-turer	Model No.	Date In-stalled	Date Accepted	Purchase Price	Source of Funds
1800 System						
Process Controller	IBM	1801				Other Fed. Agency
Printer Keyboard	"	1816				"
Enclosure	"	1828				"
Analog Input Terminal	"	1851			2,908	"
Analog Output Terminal	"	1856			6,540	"
Digital Display	ACME				(1)	"
Oscilloscope	Hewlett-Packard					SRR
Pulse Generator	E. H. Research Labs	139B			1,500 1,275	Macy Grant "
Data Transmission Device	IBM	270 X/Y	12/14/67	4/15/69	73,500	51,086. SRR Other Fed. Agency

(1) Fabricated and assembled by ACME staff.

Beatrice, E., I. Harding-Barlow, and D. Glick, "Electric Spark Cross-Excitation in Laser Microprob-Emission Spectroscopy for Samples of 10-25 Micron Diameter," APPLIED SPECTROSCOPY, vol. 23, pp. 257-259, 1969.

Beatrice, E. and D. Glick, "A Direct Reading Polychromator for Emission Spectroscopy," APPLIED SPECTROSCOPY, vol. 23, pp. 260-263, 1969.

Bellville, J., G. Fleischli, and J. Defares, "A New Method of Study Regulation of Respiration--The Response to Sinusoidally Varying CO<sub>2</sub> Inhalation," COMPUTERS FOR BIOMEDICAL RESEARCH, vol. 2, no. 4, pp. 329-349, June 1969.

Bernfield, M. and P. Maenpaa, "Quantitative Variation in Serine Transfer Ribonucleic Acid during Estrogen-Induced Phosphoprotein Synthesis in Rooster Liver," BIOCHEMISTRY, vol. 8, pp. 4926-4935, 1969.

Bodmer, W., J. Bodmer, D. Ihde, and S. Adler, "Genetic and Serological Association Analysis of the HL-A Leukocyte System," COMPUTER APPLICATIONS IN GENETICS (ed. N. Morton), Univ. Hawaii Press, pp. 117-127, 1969.

Bodmer, W., V. Miggiano, and M. Nabholz, "Hybrids between Human Leukocytes and a Mouse Cell Line: Production and Characterization," WISTAR INSTITUTE SYMPOSIUM, monograph no. 9, "Heterospecific Genome Interaction," (ed. V. Defendi), THE WISTAR INSTITUTE PRESS, 1969.

Bodmer, W., M. Nabholz, and V. Miggiano, "Genetic Analysis Using Human-Mouse Somatic Cell Hybrids," NATURE, vol. 223, pp. 348-363, 1969.

Bodmer, W. and L. Cavalli-Sforza, "The Genetics of Human Populations," FREEMAN AND COMPANY, in press.

Bodmer, W. and J. Bodmer, "Studies on African Pygmies IV: A Comparative Study of the HL-A Polymorphism in the Babinga Pygmies and Other African and Caucasian Populations," AMERICAN JOURNAL OF HUMAN GENETICS, in press.

Bodmer, W. and B. Gabb, "A Micro Complement Fixation Test for Platelet Antibodies," HISTOCOMPATIBILITY TESTING, in press.

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SUMMARY OF RESOURCE EXPENDITURES

	SRR Allocation (when applicable)			Total Resource Expenditures		
	Actual Previous Budget Period	Current Budget Period	Estimate Next Budget Period	Actual Previous Budget Period	Current Budget Period	Estimate Next Budget Period
1. Personnel:						
a. Salaries & Wages	163,738	200,309	260,358	175,318	204,574	260,358
b. Fringe Benefits	18,871	23,959	35,842	20,082	24,484	35,842
Subtotal	<u>182,609</u>	<u>224,268</u>	<u>296,200</u>	<u>195,400</u>	<u>229,058</u>	<u>296,200</u>
2. Consultant Services	- - -	1,500	1,000	- - -	1,500	1,000
3. Equipment						
a. Main Resource-Rented	293,407	356,313	404,331	351,801	356,313	404,331
b. Main Resource-Purchased	- - -	39,084	36,000	- - -	39,084	36,000
c. Supporting Equipment	17,382	21,167	23,944	21,667	21,167	23,944
d. Equipment Maintenance	3,113	3,218	4,000	3,218	3,218	4,000
Subtotal	<u>313,902</u>	<u>419,782</u>	<u>468,275</u>	<u>376,686</u>	<u>419,782</u>	<u>468,275</u>
4. Supplies	20,646	17,600	20,425	21,585	17,600	20,425
5. Travel	2,362	4,000	5,000	2,462	4,000	5,000
6. Alterations & Renovations	- - -	- - -	- - -	- - -	- - -	- - -
7. Publication Costs	6,554	4,000	5,000	6,554	4,000	5,000
8. Other						
a. Computer Services	4,249	10,000	10,000	4,249	10,000	10,000
b. Other	8,518	18,850	34,100	8,742	18,850	34,100
Subtotal	<u>12,767</u>	<u>28,850</u>	<u>44,100</u>	<u>12,991</u>	<u>28,850</u>	<u>44,100</u>
9. Subtotal - Direct Costs	<u>538,840</u>	<u>700,000</u>	<u>840,000</u>	<u>615,678</u>	<u>704,790</u>	<u>840,000</u>
10. Indirect Costs	<u>93,221</u>	<u>118,182</u>	<u>153,611</u>	<u>98,026</u>	<u>120,699</u>	<u>153,611</u>
11. Total Costs	<u>632,061</u>	<u>818,182</u>	<u>993,611</u>	<u>713,704</u>	<u>825,489</u>	<u>993,611</u>

	CURRENT BUDGET PERIOD		ESTIMATE FOR NEXT BUDGET PERIOD	
	SRR	Total	SRR	Total
1. PERSONNEL *				
Management	27,528	27,528	46,500	46,500
Programmers	76,283	80,548	81,038	81,038
Other Professionals	23,708	23,708	31,500	31,500
Research Assistants	4,614	4,614	8,079	8,079
Operations	52,593	52,593	53,600	53,600
Technicians and Machinists <sup>(1)</sup>	3,121	3,121	- - -	- - -
Secretarial and Administrative	<u>12,462</u>	<u>12,462</u>	<u>12,500</u>	<u>12,500</u>
Subtotal - Salaries	200,309	204,574	233,217	233,217
Staff Benefits				
11.6% August, 1969				
12.3% 9/1/69 - 8/31/70				
13.9% 9/1/70 - 8/31/71	<u>23,959</u>	<u>24,484</u>	<u>32,106</u>	<u>32,106</u>
TOTAL PERSONNEL	224,268	229,058	265,323	265,323

\* Supplemental detail submitted to SRRB N.I.H.

(1) Function and personnel transferred to Stanford Computation Center Engineering Services group.

	CURRENT BUDGET PERIOD		ESTIMATE FOR NEXT BUDGET PERIOD	
	SRR	Total	SRR	Total
2. CONSULTANT SERVICE	1,500	1,500	500	500
3. PERMANENT EQUIPMENT				
IBM 360/50				
1052-50618	638	638	635	635
1403-14708	8,442	8,442	8,397	8,397
2050-11047	94,494	94,494	97,348	97,348
2314-11149 and 12326	106,378	106,378	105,840	105,840
2361-10102	76,553	76,553	76,161	76,161
2401-10877	3,394	3,394	3,377	3,377
2403-70738	9,095	9,095	8,971	8,971
2540-12531	6,686	6,686	6,653	6,653
2701-11144	10,379	10,379	10,332	10,332
2702-20185	15,823	15,823	16,834	16,834
2821-12464	10,992	10,992	10,937	10,937
2316-(16 units)	3,226	3,226	3,226	3,226
2741-(10 units)	<u>10,214</u>	<u>10,214</u>	<u>12,257</u>	<u>12,257</u>
(12 units 311-05)				
Subtotal, Main Configuration	356,313	356,313	360,968	360,968
IBM 1800 - Additional Units				
1442 -	2,604	2,604	2,591	2,591
1826 -	7,701	7,701	7,691	7,691
1856 - Analog Inputs	<u>- - -</u>	<u>- - -</u>	<u>1,373</u>	<u>1,373</u>
	10,305	10,305	11,655	11,655
Unit Record Equipment				
029 - (replace with C22 in FY1971)	679	679	1,055	1,055
Data Set Rental (includes line rental)				
328-7393	519	519	519	519
327-9200	6,606	6,606	7,339	7,339
328-3189	433	433	433	433
77-KD-200	768	768	768	768
77-KD-1647	720	720	720	720
321-3870	1,137	1,137	1,137	1,137
2 add. lines next year	<u>- - -</u>	<u>- - -</u>	<u>318</u>	<u>318</u>
	10,183	10,183	11,234	11,234

	CURRENT BUDGET PERIOD		ESTIMATE FOR NEXT BUDGET PERIOD	
	SRR	Total	SRR	Total
3. PERMANENT EQUIPMENT (Continued)				
IBM 2321-1, Data Cell, del. Feb., 1971. Monthly rental \$2,800 - 10% EA, + 5% tax	- - -	- - -	15,786	15,786
IBM 2841, Data Cell Control, del. Feb., 1971. Monthly rental \$525 - 10% EA, + 5% tax	- - -	- - -	<u>2,977</u>	<u>2,977</u>
Subtotal Leased Equipment	377,480	377,480	403,675	403,675
<u>Purchased Equipment</u>				
3 graphics terminals with interface	15,000	15,000	- - -	- - -
2 acoustic couplers	760	760	- - -	- - -
IBM 1800 additional core	- - -	- - -	16,000	16,000
Graphics Control Device	<u>23,324</u>	<u>23,324</u>	- - -	- - -
Subtotal Purchased Equipment	39,084	39,084	16,000	16,000
Maintenance	<u>3,218</u>	<u>3,218</u>	<u>4,000</u>	<u>4,000</u>
TOTAL EQUIPMENT	419,782	419,782	423,675	423,675
4. Consumable Supplies				
Office	3,600	3,600	3,000	3,000
Engineering	2,000	2,000	1,000	1,000
Computer	<u>12,000</u>	<u>12,000</u>	<u>13,402</u>	<u>13,402</u>
	17,600	17,600	17,402	17,402
5. Travel	4,000	4,000	4,000	4,000
6. Alterations and Renovations	none	none	none	none
7. Publications Costs	4,000	4,000	4,000	4,000
8. Engineering Services (by S.C.C.)	9,500	9,500	15,000	15,000
9. Computer Services 360/67 and auxiliary from Campus Facility - SCC	10,000	10,000	10,000	10,000
10. Other Expenditures				
Books and Periodicals	150	150	200	200
Postage and Freight	400	400	500	500
Telephone and Telegraph	7,000	7,000	7,000	7,000
Physical Plant	300	300	400	400
Technical Services	<u>500</u>	<u>500</u>	<u>500</u>	<u>500</u>
Total Other Expenditures	8,350	8,350	8,600	8,600
11. IBM S.E. service, program products, and staff train- ing	<u>1,000</u>	<u>1,000</u>	<u>1,500</u>	<u>1,500</u>
GRAND TOTAL DIRECT COSTS	700,000	704,790	750,000	750,000

SUMMARY OF RESOURCE FUNDING

	<u>BUDGET PERIODS</u>		
	Actual Previous Budget Period	Current Budget Period	Estimate Next Budget Period
<u>SOURCE OF FUNDS</u>			
<u>Service Charges</u> (when applicable): (Identify individual rates)	\$ 37,277	\$170,000	\$220,000
Consulting/Programming			
Peripheral Equipment			
Computer Equipment			
Other Service Charges			
Subtotal			
<u>Institution Funds</u>			
Other Support (identify source)			
1. Equipment Rent Refund	35,460		
Subtotal			
<u>SRR Support</u>			
Amount of Current Award: (Line (5) of Award Statement)	559,324	712,689	709,104
Adjustments from prior periods			
1. Line 4 of current award statement	_____	0	64,507
2. ROE Adjustment			
Total SRR Support	_____	_____	_____
<u>TOTAL FUNDING</u>	\$632,061	\$882,689	\$993,611



Budget Justification			FY 1971				
	CURRENT AWARD	CURRENT EXPENDITURES	VARIANCE	COUNCIL APPROVED BUDGET BASE	REQUESTED BUDGET RESTORATIONS	CONTINGENCY ITEMS	TOTAL BUDGET
Personnel	221,905	224,268	2,363	265,323	30,877		296,200
Consultants	1,500	1,500	- - -	500	500		1,000
Equipment	407,390	419,782	12,392	423,675		44,600	468,275
Supplies	25,852	17,600	<8,252>	17,402	3,023		20,425
Travel	4,000	4,000	- - -	4,000	1,000		5,000
Publications Costs	5,000	4,000	<1,000>	4,000	1,000		5,000
Engineering Services	- - -	9,500	9,500	15,000	5,000		20,000
Computer Services	10,000	10,000	- - -	10,000			10,000
IBM S.E. Service, Program Products, Staff Training	16,380	1,000	<15,380>	1,500	1,500	2,500	5,500
Other	7,973	8,350	377	8,600			8,600
TOTAL DIRECT	700,000	700,000		750,000	42,900	47,100	840,000
INDIRECT@57/59%	112,689	118,182					153,611
TOTAL OPERATING COSTS	812,689	818,182					993,611
FUNDING							
Service Charge Income							220,000
Estimate	100,000	170,000					709,104
SRR Support	712,689	712,689					
Requested Carryover to RR 311-05		<64,507>					64,507
TOTAL FUNDING	812,689	818,182					993,611